

Claims

- [c1] 1. An optical disc drive comprising:
- a housing having at least a track
 - a position shaft fixed on the housing; and
 - a tray module comprising:
 - a tray installed within the housing in a slidable manner along the track;
 - a solenoid fixed on the tray for providing a magnetic force;
 - a latch installed beside the solenoid for moving according to changes of the magnetic force;
 - a push rod rotatably fixed on the tray with respect to a pivot, the push rod having one end connected to the latch and having a slot formed at another end;
 - a hook rotatably fixed on the tray with one end for engaging with the positioning shaft and another end connected to the push rod;
 - a torsion spring fixed on the pivot of the push rod; and
 - a compression spring installed on the tray and having one end fixed in the slot of the push rod.
- [c2] 2. The optical disc drive of claim 1 wherein the solenoid comprises a magnet and a coil and the solenoid is capa-

ble of attracting the latch to make the first end of the push rod move close to the solenoid, and second end of the torsion spring push the first end of the hook away from the push rod; when the coil is supplied, the coil capable of generating the magnetic force to counteract the magnetic force of the magnetic to make the solenoid not attract the latch so that the compression spring is capable of moving the push rod, and then the push rod being of moving the first end of the rod to rotate away from the position shaft so that the compression spring pushes the tray away from the housing.

- [c3] 3.The optical disc drive of claim 1 wherein the first end of the push rod is connected to the latch in locking manner and the second end of the push rod is connected to the hook in the locking manner.
- [c4] 4.The optical disc drive of the claim 3 wherein the second end of the push rod has a protruding shaft connected to the hook in the locking manner.
- [c5] 5.The optical disc drive of claim 1 wherein the hook is an L-shaped hook and the first end of the hook has a tongue-shaped extension part for locking the position shaft.